IN THE CLAIMS:

Please amend the Claims as follows.

1. (Original) A guide bushing comprising:

a body portion having a bore extending therethrough, the bore includes:

a proximal portion having a diameter;

an intermediate portion having a diameter which is larger than the diameter of the proximal portion; and

a distal portion having a plurality of ribs extending radially inward therefrom and defining a plurality of channels therein which extend through to a distal-most end of the body portion; and

an inlet formed in the body portion and being in fluid communication with the intermediate portion of the bore.

2. (Original) The guide bushing according to claim 1, wherein the distal portion of the bore has an inner diameter substantially equal to the diameter of the proximal portion of the bore and an outer diameter substantially equal to the inner diameter plus twice the height of the ribs.

3. (Original) The guide bushing according to claim 1, wherein the bore is sized to receive a rotatable electrode having a diameter therein.

4. (Original) The guide bushing according to claim 3, wherein the diameter of the proximal portion of the bore and the inner diameter of the distal portion of the bore are sized to be substantially equal to the diameter of the electrode.

5. (Original) The guide bushing according to claim 4, wherein the channels are axially aligned with a longitudinal axis of the bore.

6. (Original) The guide bushing according to claim 5, wherein the channels are angled in a direction radially outward.

7. (Original) The guide bushing according to claim 6, wherein the intermediate portion of the bore defines a race.

8. (Original) The guide bushing according to claim 7, wherein fluid enters the guide bushing and the race through the inlet and exits the guide bushing and the race through the channels.

9. (Original) The guide bushing according to claim 1, wherein the guide bushing is fabricated from a non-conductive material.

10. (Currently amended) The guide bushing according to claim 1, wherein the guide bushing is fabricated from at least one of nylon, ~~Teflon~~ Teflon®, polypropylene, polyester and neoprene.

11. (Original) The guide bushing according to claim 1, wherein the guide bushing reduces the tendency of the electrode to bow radially outward upon rotation thereof.

12. (Original) The guide bushing according to claim 1, wherein the guide bushing tends to maintain the linearity of the electrode upon rotation of the electrode during a machining process.

13. (Currently amended) A guide bushing for use in association with electrical discharge machining (EDM) apparatus including a rotatable electrode defining a longitudinal axis, the guide bushing comprising:

a body portion defining a bore therethrough for receiving at least a portion of the electrode therein, the bore including:

a proximal portion sized to be in contact with an outer surface of the electrode;

an intermediate portion sized to be spaced from the electrode; and

a distal portion sized to be at least partially in contact with the outer surface of the electrode, wherein the distal portion of the bore includes a plurality of radially oriented channels formed therein.

14. (Cancelled)

15. (Currently amended) The guide bushing according to claim ~~[[14]]~~ 13, wherein the channels are axially aligned with the longitudinal axis of the electrode.

16. (Original) The guide bushing according to claim 15, wherein the channels are angled with respect to the longitudinal axis of the electrode.

17. (Original) The guide bushing according to claim 15, wherein the intermediate portion of the bore defines a race within the guide bushing.

18. (Original) The guide bushing according to claim 17, further including an inlet formed in the body portion and being in fluid communication with the race.

19. (Original) The guide bushing according to claim 18, wherein fluid enters the guide bushing and the race through the inlet and exits the guide bushing through the channels.

20. (Original) The guide bushing according to claim 19, wherein the guide bushing defines a contact region which is substantially equal to the length of the bore.

21. (Original) The guide bushing according to claim 20, wherein between 6 and 12 channels are formed in the distal portion of the bore.

22. (Original) The guide bushing according to claim 13, wherein the proximal end portion of the bore defines a first contact region, and wherein the distal end portion of the bore defines a second contact region.

23. (Original) The guide bushing according to claim 13, wherein the guide bushing reduces the tendency of the electrode to bow radially outward upon rotation thereof.

24. (Original) The guide bushing according to claim 13, wherein the guide bushing tends to maintain the linearity of the electrode upon rotation of the electrode during a machining process.

25. (Currently amended) In a system for reducing the degree of deflection of a distal tip of a rotating electrode in an electrical discharge machining (EDM) apparatus

including a guide bushing operatively associated with a distal end of the electrode, the improvement comprising:

an auxiliary bushing operatively connected with the electrode, the auxiliary bushing including a bore formed therein sized to permit rotation of the electrode relative to the auxiliary bushing, to permit slidable movement of the auxiliary bushing relative to the electrode in a direction along a longitudinal axis of the electrode, and to inhibit deflection of the electrode in a radially outward direction upon rotation of the electrode, wherein the auxiliary bushing is positioned proximal of the guide bushing;

a support system operatively associated with the auxiliary bushing, the support system including at least one arm connected to and extending from the auxiliary bushing, the arm maintaining the bore of the auxiliary bushing substantially co-axial with longitudinal axis of the electrode,

wherein the guide bushing comprises:

a body portion defining a bore therethrough for receiving at least a portion of the electrode therein, the bore including:

a proximal portion sized to be in contact with an outer surface of the electrode;

an intermediate portion sized to be spaced from the electrode; and

a distal portion sized to be at least partially in contact with the outer surface of the electrode.

26. (Cancelled)

27. (Currently amended) The system according to claim [[26]] 25, further comprising at least one damping element having a first end operatively connected to the auxiliary bushing and a second end operatively connected to a support structure.

28. (Original) The system according to claim 27, wherein the damping element includes at least one of a spring and a damper.

29. (Currently amended) The system according to claim 28, wherein the support structure includes a guide rod having a longitudinal axis which is ~~axially~~ aligned ~~with~~ parallel to the longitudinal axis of the electrode, wherein the arm is slidably supported by the guide rod.

30. (Cancelled)

31. (Currently amended) The system according to claim [[30]] 25, wherein the distal portion of the bore of the guide bushing includes a plurality of radially oriented channels formed therein.

32. (Original) The system according to claim 31, wherein the channels are axially aligned with the longitudinal axis of the electrode.

33. (Original) The system according to claim 32, wherein the intermediate portion of the bore of the guide bushing defines a race within the guide bushing.

34. (Original) The system according to claim 33, wherein the guide bushing further includes an inlet formed in the body portion and which is in fluid communication with the race.

35. (Original) The system according to claim 34, wherein fluid enters the guide bushing and the race through the inlet and exits the guide bushing through the channels.

36. (Original) The system according to claim 35, wherein the guide bushing defines a contact region which is substantially equal to the length of the bore thereof.

37. (Original) The system according to claim 36, wherein the proximal end portion of the bore of the guide bushing defines a first contact region, and wherein the distal end portion of the bore of the guide bushing defines a second contact region.

38. (Currently amended) The system according to claim [[30]] 25, wherein the auxiliary bushing and the guide bushing reduce the tendency of the electrode to bow radially outward upon rotation thereof.

39. (Currently amended) The system according to claim [[30]] 25, wherein the auxiliary bushing and the guide bushing tend to maintain the linearity of the electrode upon rotation of the electrode during a machining process.